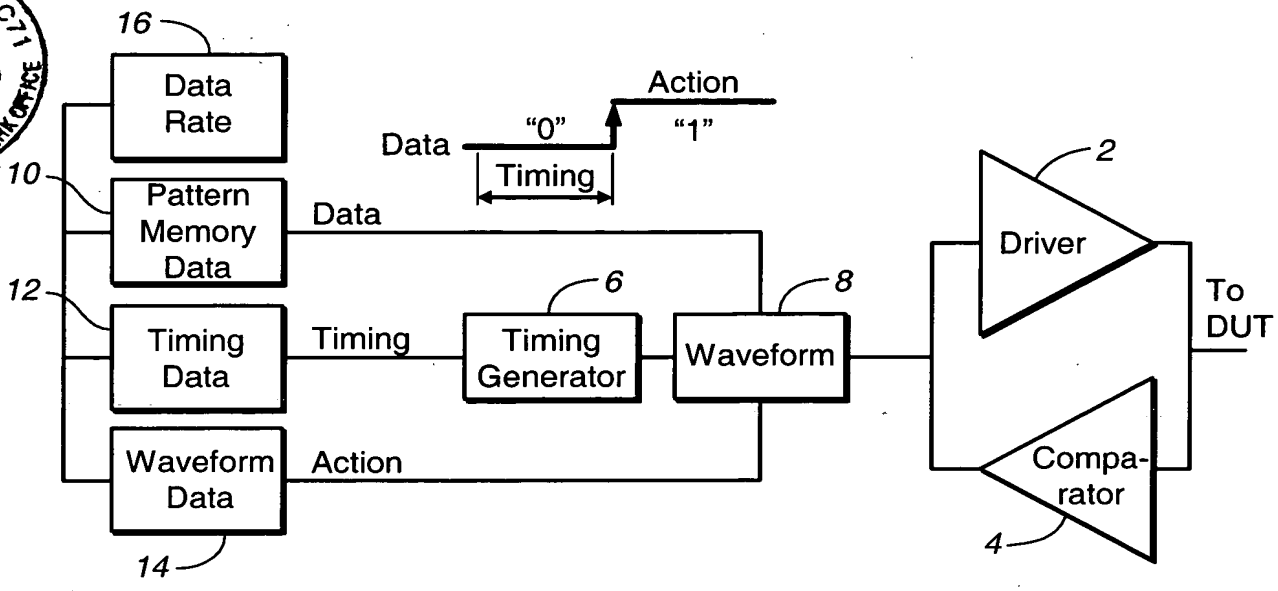
OIPE JC71
JUL 0 6 2004
PATENT & TRADEMARK OFFICE






Action = Pattern Data * Timing Data (Limited by TimeSet) * Waveset * Drive

FIG._1

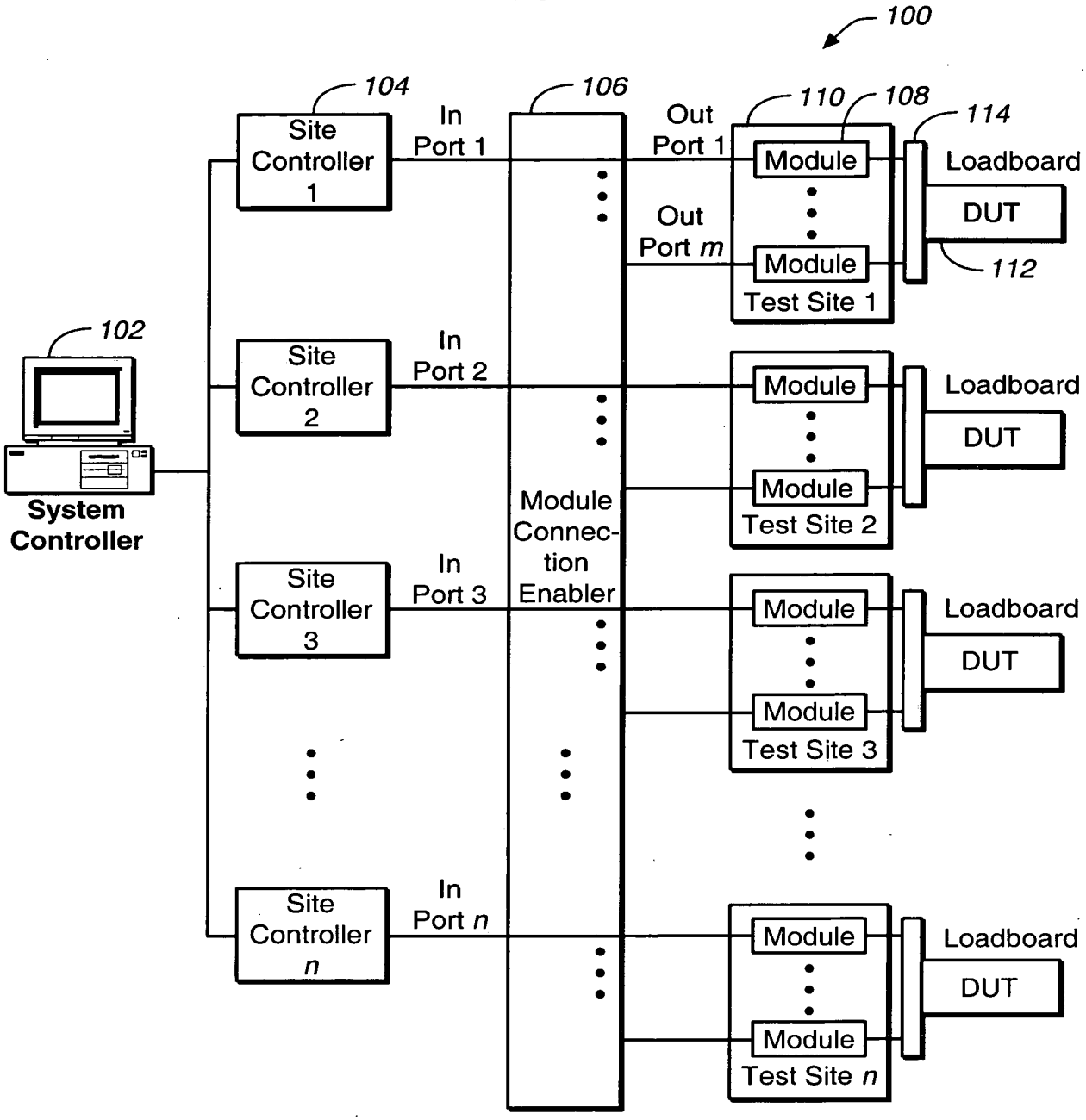

100
104
106
110
108
114
Site Controller 1
In Port 1
Out Port 1
Module
Loadboard
DUT
Out Port m
Module
Test Site 1
112
102
Site Controller 2
In Port 2
Module
Loadboard
DUT
Module
Test Site 2
System Controller
Site Controller 3
In Port 3
Module Connec-tion Enabler
Module
Loadboard
DUT
Module
Test Site 3
Site Controller n
In Port n
Module
Loadboard
DUT
Module
Test Site n

FIG._2

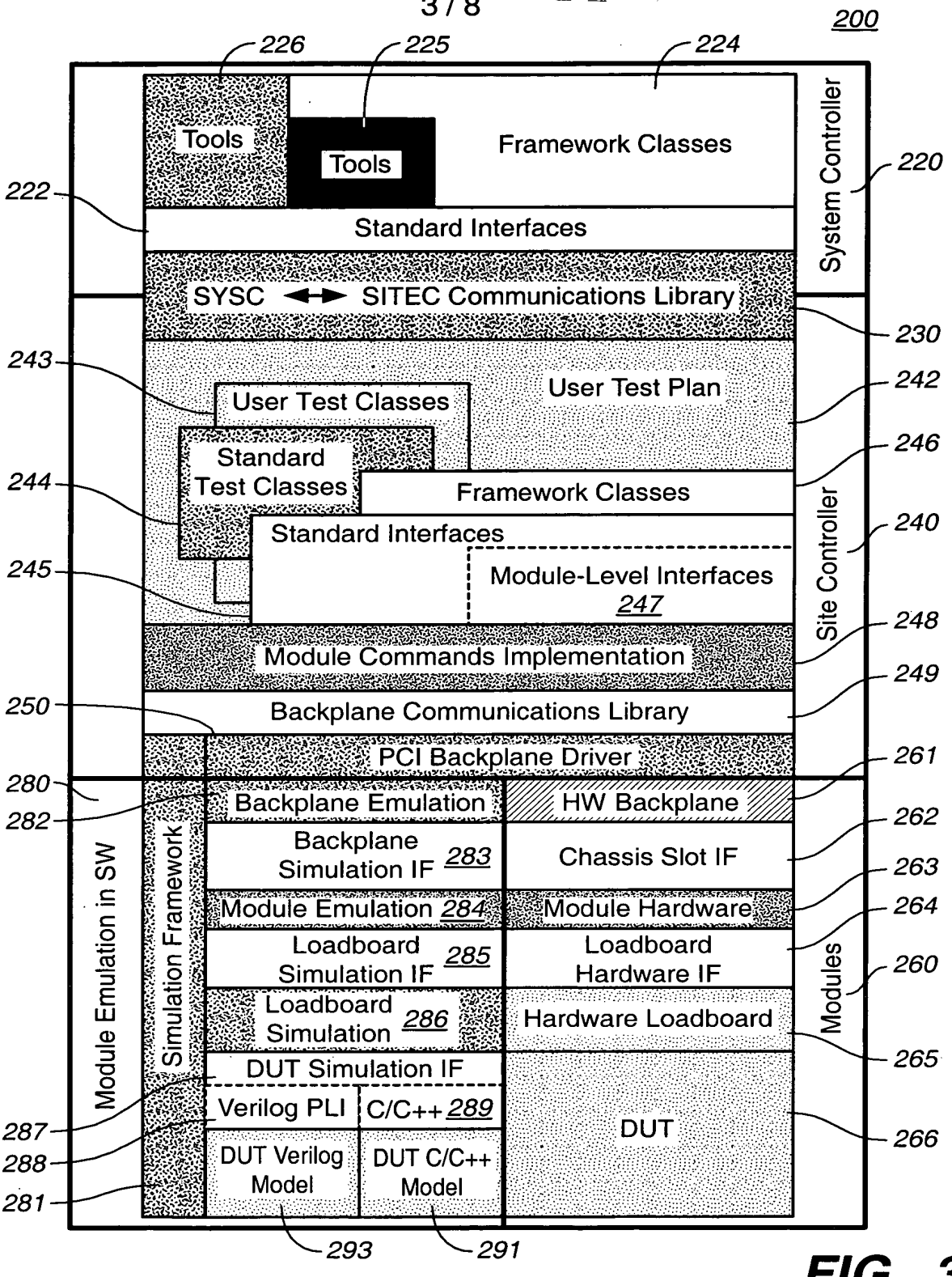

200
226
225
224
Tools
Tools
Framework Classes
System Controller
220
222
Standard Interfaces
SYSC ◄► SITEC Communications Library
230
243
User Test Classes
User Test Plan
242
Standard Test Classes
246
244
Framework Classes
Standard Interfaces
240
245
Module-Level Interfaces 247
Site Controller
248
Module Commands Implementation
249
250
Backplane Communications Library
PCI Backplane Driver
261
280
Backplane Emulation
HW Backplane
282
262
Backplane Simulation IF 283
Chassis Slot IF
263
Module Emulation Framework
Module Emulation in SW
Module Emulation 284
Module Hardware
264
Loadboard Simulation IF 285
Loadboard Hardware IF
260
Modules
Loadboard Simulation 286
Hardware Loadboard
265
DUT Simulation IF
Verilog PLI
C/C++ 289
DUT
287
266
288
DUT Verilog Model
DUT C/C++ Model
281
293
291
290
Interface
296
Module Development
292
User
298
External
294
SYSTEM
Key

FIG._3

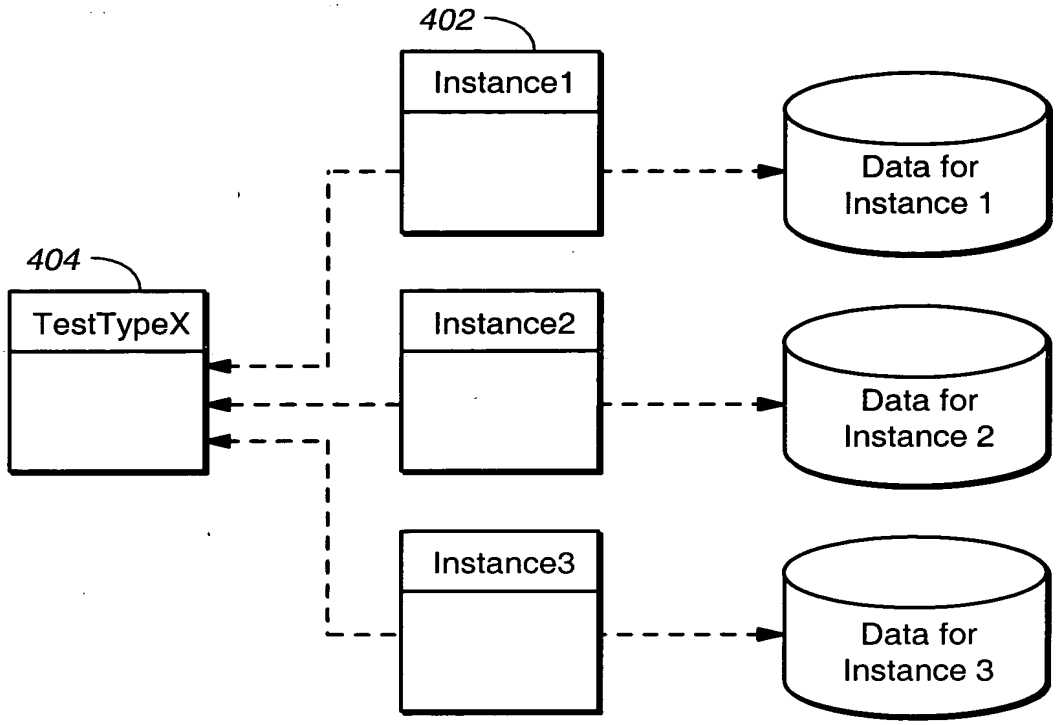

402
Instance1
Data for Instance 1
404
TestTypeX
Instance2
Data for Instance 2
Instance3
Data for Instance 3

FIG._4

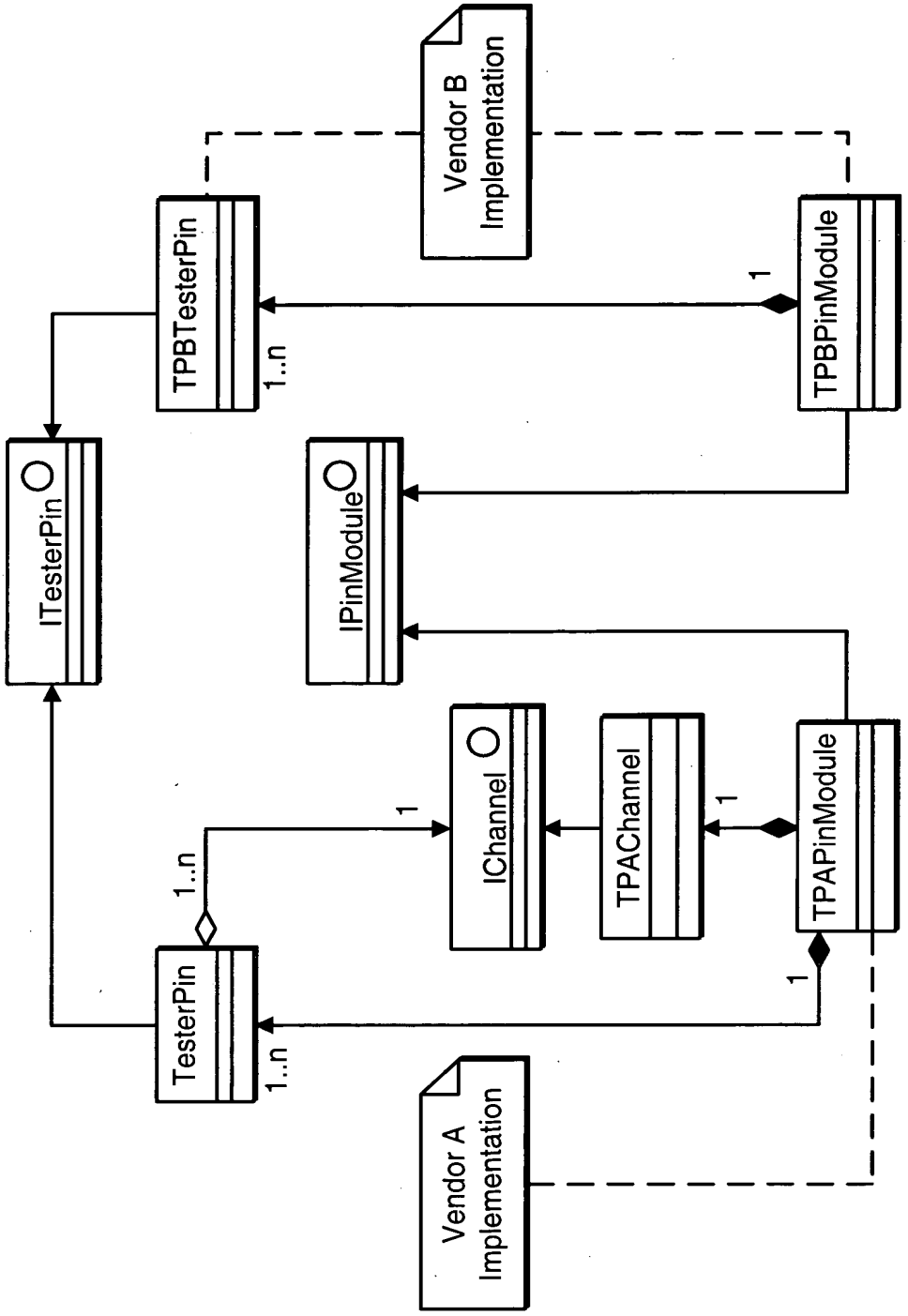

Vendor B Implementation
TPBTesterPin
1..n
1
TPBPinModule
ITesterPin
IPinModule
IChannel
TPAChannel
TPAPinModule
1
1..n
1
TesterPin
1..n
1
Vendor A Implementation

FIG._5

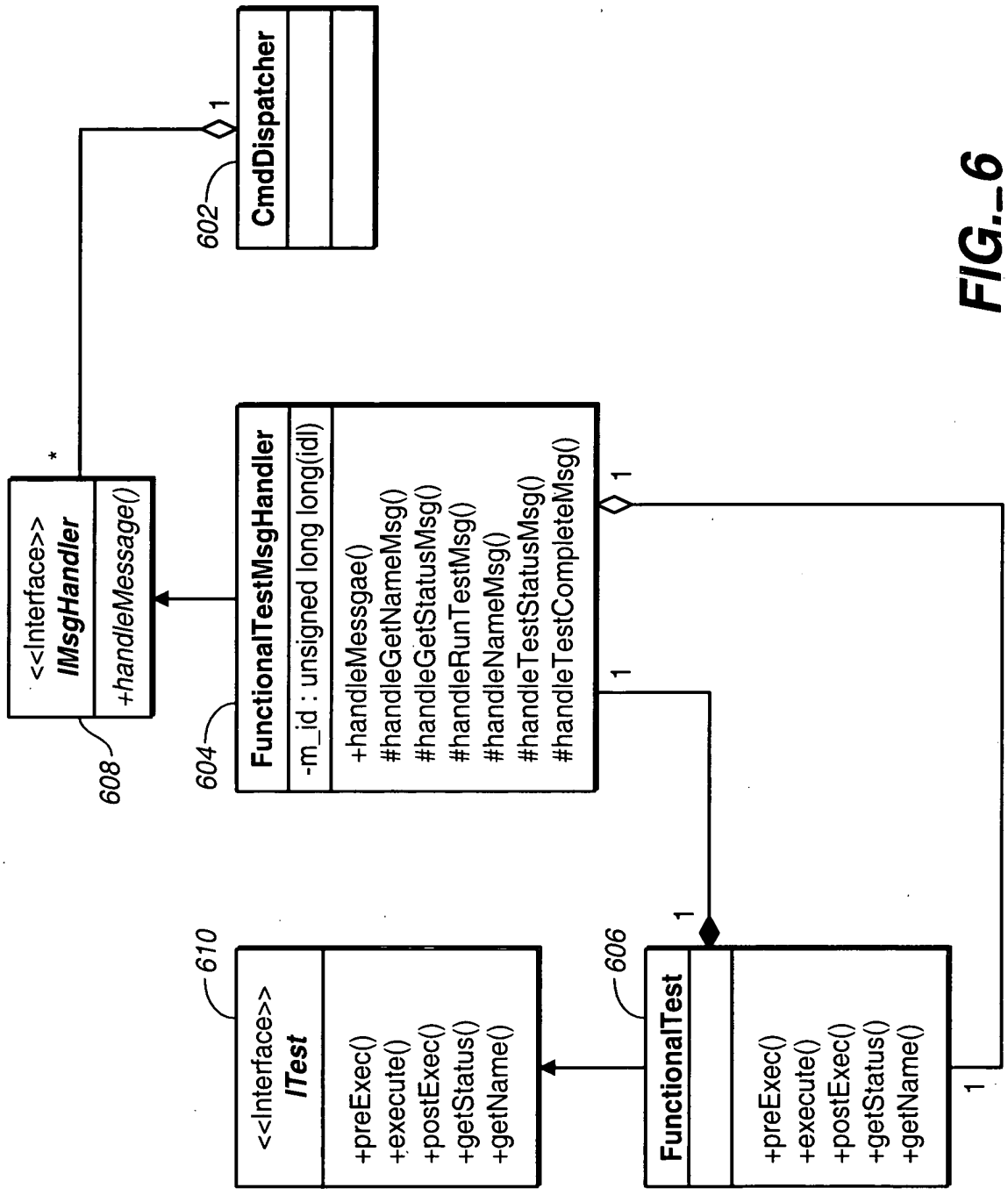

CmdDispatcher
602
1
*
<<Interface>>
IMsgHandler
+handleMessage()
608
FunctionalTestMsgHandler
-m_id : unsigned long long(idl)
+handleMessgae()
#handleGetNameMsg()
#handleGetStatusMsg()
#handleRunTestMsg()
#handleNameMsg()
#handleTestStatusMsg()
#handleTestCompleteMsg()
604
1
1
1
610
<<Interface>>
ITest
+preExec()
+execute()
+postExec()
+getStatus()
+getName()
606
1
FunctionalTest
+preExec()
+execute()
+postExec()
+getStatus()
+getName()
1

FIG._6

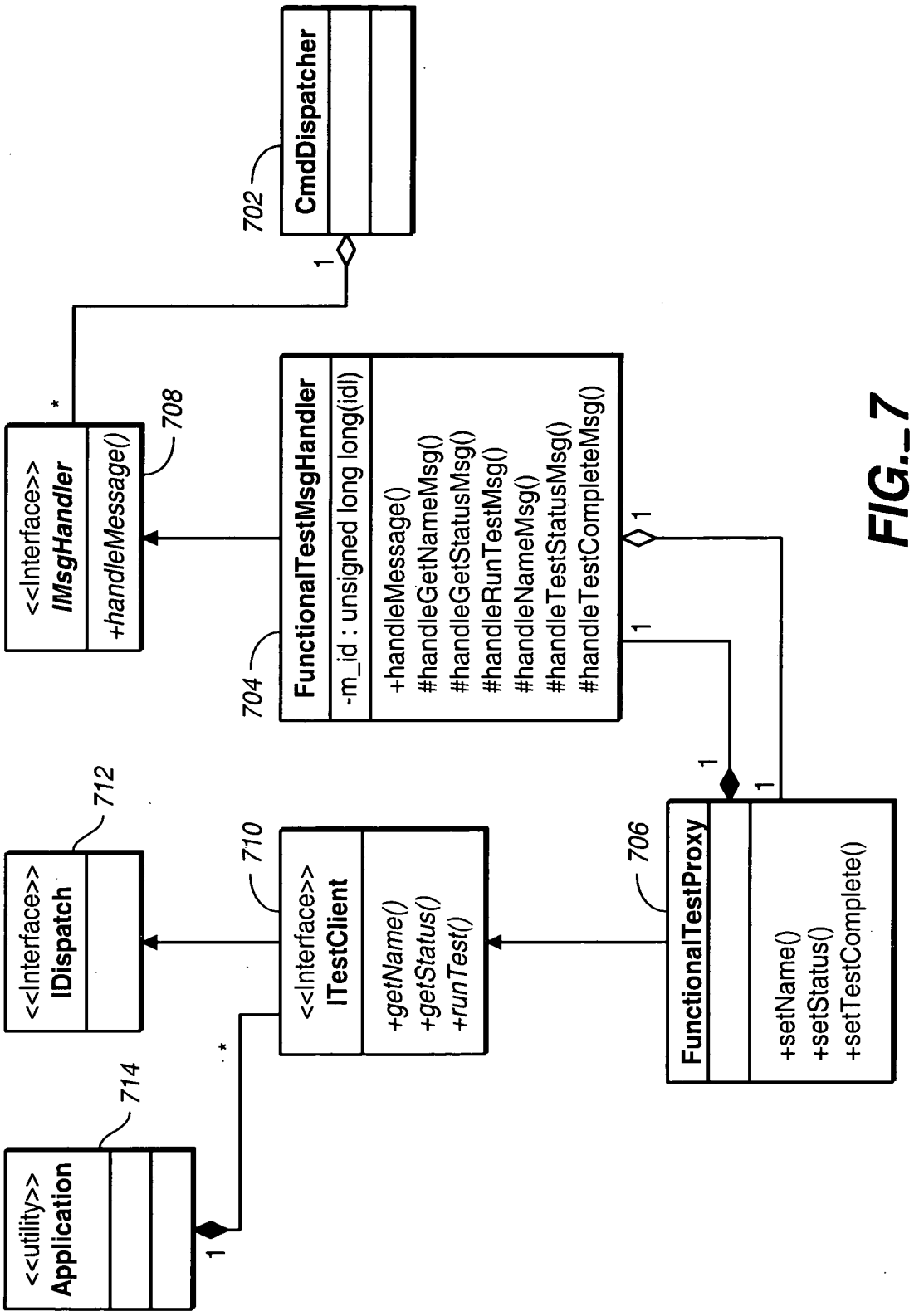

CmdDispatcher
702
1
*
<<Interface>>
IMsgHandler
+handleMessage()
708
FunctionalTestMsgHandler
-m_id : unsigned long long(idl)
+handleMessage()
#handleGetNameMsg()
#handleGetStatusMsg()
#handleRunTestMsg()
#handleNameMsg()
#handleTestStatusMsg()
#handleTestCompleteMsg()
704
1
1
1
1
<<Interface>>
IDispatch
712
<<Interface>>
ITestClient
+getName()
+getStatus()
+runTest()
710
FunctionalTestProxy
+setName()
+setStatus()
+setTestComplete()
706
*
1
<<utility>>
Application
714

FIG._7

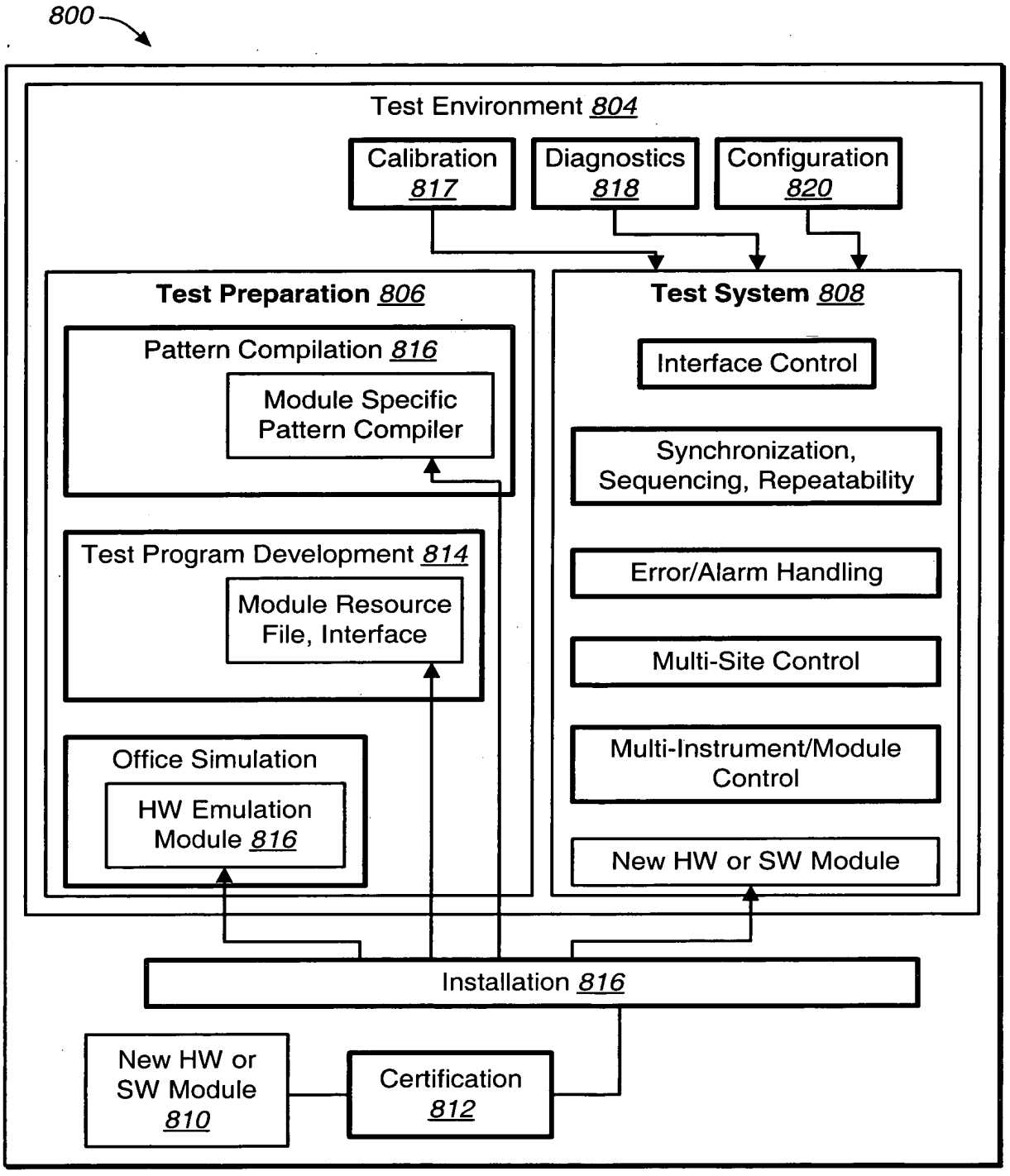

800
Test Environment 804
Calibration 817
Diagnostics 818
Configuration 820
Test Preparation 806
Pattern Compilation 816
Module Specific Pattern Compiler
Test Program Development 814
Module Resource File, Interface
Office Simulation
HW Emulation Module 816
Test System 808
Interface Control
Synchronization, Sequencing, Repeatability
Error/Alarm Handling
Multi-Site Control
Multi-Instrument/Module Control
New HW or SW Module
Installation 816
New HW or SW Module 810
Certification 812

FIG._8